

REMARKS

The Examiner is thanked for the careful examination of the application and for the indication of allowable subject matter.

Information Disclosure Statement:

Information Disclosure Statements were filed in this application on July 25, 2002 and December 28, 2004. Copies of the Information Disclosure Statements and postcard receipts indicating receipt thereof by the U.S. Patent and Trademark Office are attached. The Examiner is respectfully requested to consider the information submitted therein and to return an initialed copy of the Information Disclosure Citation Forms to Applicants' attorney.

Art Rejection:

Claims 7-9 have been rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 5,859,712, hereinafter *Kim*. The Examiner has also indicated that claims 1 - 5 and 10 - 21 contain allowable subject matter.

Claims 7-9 define an image processing apparatus that includes a sensor disposed linearly in a primary scanning direction, an optical system for projecting light from the image onto the sensor, and a correction portion for correcting a misregistration of the colors in the primary scanning direction due to a chromatic aberration of the optical system, the correction portion performing a misregistration correction for each of the plural areas divided in the primary scanning direction. It is important to note that the correction portion corrects a misregistration of the colors in the primary scanning direction.

In the Official Action, an allegation is made that Kim teaches that there is color deviation in both main-scanning and sub-scanning directions, and a correction for a misregistration of the colors is done in both the main-scanning and sub-scanning directions. The Examiner further states that "the width of the sensor discussed in the invention is the length of the sensor in the main scan direction (col. 6, line 57 – col. 7, line 8)." However, the sensors referred to in that section are illustrated in Fig. 3A, and clearly extend in the sub-scan direction, not the primary scan direction.

To the extent that there is a main scan direction component to any of the sensors in the Fig. 3B embodiment, there is no recognition in Kim of a need to correct for chromatic aberration. See col. 7, lines 27 – 28, "The arrangement sequence of the sensors in each color is not part of the technique." Accordingly, the last comment of the Examiner is not understood.

With regard to the allegation that Kim teaches that there is color deviation in both main-scanning and sub-scanning directions, and a correction for a misregistration of the colors is done in both the main-scanning and sub-scanning directions, the Examiner refers to the following sections of Kim:

In general, the interval between the sensors maintains the relationship between a multiple of an integer of the width and the length of each light receiving element which are determined by a resolution in the main scan direction provided by the sensors....In a document image reading apparatus, the resolutions in the main scan and sub-scan directions are arbitrarily and finely adjusted so that various magnification conversions are possible according to the relationship with an output apparatus. (col. 2, lines 27 – 47)

In an actual image reading apparatus, the magnification transformation is required to be processed by an arbitrary variable magnification, and a soft image process should be enabled by independently performing

the variable magnifications in the main scanning direction
and the sub-scanning direction. (col. 8, lines 6 – 11)

In the first section quoted above, the "interval" is the spacing in the main scan direction between the rows of sensors that are arranged linearly in the sub-scan direction, as seen in Fig. 3A. The disclosed sensor does not extend linearly in the primary scanning direction, as set forth in claim 7. Furthermore, resolutions referred to in the foregoing section relate to magnifications, not chromatic aberrations. Similarly, the "magnification transformation" relates to magnifications, not chromatic aberrations. Thus, the quoted sections are not related to color deviations caused by chromatic aberrations of the optical system or misregistration of the colors.

Also, the correction referred to by Kim in col. 7, line 59, relates to the spacing in the main scan direction between sensor elements. Accordingly, applicants submit that Kim does not teach or suggest the subject matter of claims 7 - 9.

In the event that there are any questions concerning this response, or the application in general, the Examiner is respectfully urged to telephone the undersigned attorney so that prosecution of the application may be expedited.

Respectfully submitted,

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